



STUDY OF STUDENTS' PERCEPTION ON TEACHING METHODOLOGIES IN ANATOMY

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ABSTRACT

Anatomy has been always recognized as an essential foundation for clinical sciences. It has been the keystone of medical education for years together. It provides a platform of knowledge indispensable to all branches of medicine. However there is a continuing debate on how much to teach, when to teach and how to teach gross anatomy. An opinion regarding curriculum, teaching methodology & assessment techniques in anatomy was taken from the First MBBS students at K.J.Somaiya Medical College with specially designed questionnaire. The best method of learning is a combination of small batch teaching with dissection hall teaching on the cadavers. Majority students opined that the best method of assessment are viva & part ending tests. This study shows that the planning about the curriculum, teaching methodology & assessment techniques can be modified taking into consideration the opinion of the students so as to bring out the best in them.

Keywords: Anatomy learning, Students view, Teaching Method.

INTRODUCTION

Anatomy has been always recognized as an essential foundation for clinical sciences. It has been the keystone of medical education for years together. It provides a platform of knowledge indispensable to all branches of medicine. However there is a continuing debate on how much to teach, when to teach and how to teach gross anatomy. It is further complicated by the fact that on one hand, time spent for learning Anatomy has reduced considerably and on the other hand, there is an exponential increase in the wealth of information to be learned. Anatomists all over the world are polarized into two groups:- Those who consider the teacher-centered approach in the form of didactic lectures followed by cadaver dissection as central to learning gross anatomy and those who favour replacement of traditional learning methods by student-centered approach with newer teaching modalities like self-directed learning (SDL), team based learning (TBL), problem based learning (PBL) and computer assisted learning (CBL). Focus of medical education is to equip medical students with knowledge, fundamental skills, learning techniques and attitudes expected from a basic doctor.

The role of faculty members in the modern concept of medical education is to facilitate this learning process. It is important to use multiple techniques in order to reach as many different types of learners as possible. The first professional MBBS course is the first contact of the fresh medical students with the medical education system after completing the higher secondary. So, this is a very crucial period for the medical students, in which they get accustomed to a different type of educational environment. Anatomy is one of the core subjects in the first professional MBBS course, which has the maximum number of teaching hours.

For the medical students and the aspiring doctors, the sudden transition from the higher secondary school or the college level to the medical college is rather difficult and stressful, and many students find it difficult to cope. This is more so, because India is a land of diversity and medical students come from different educational and socio economic backgrounds. Majority of the students joining the MBBS course have undergone a prior "spoon feeding" type of coaching by their parents and coaching classes.

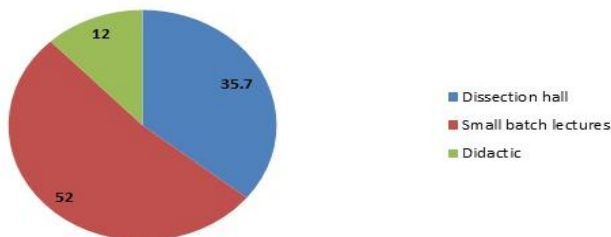
In the new unfamiliar environment of a medical college they are exposed to a totally new scenario of teaching/learning process. They develop problems like difficulty in studying, memorizing new terminologies, understanding of the heavy volumes of the pre-clinical subjects (especially Anatomy), problems related to adjusting and adapting to college and hostel life and odour related to the dissection of cadavers. If they are unable to cope initially, learning becomes very unpleasant, leading to frustrations, eroding of their self confidence and consequent poor performance in the first term examination. It is necessary to know the views of the students while revising the curriculum and to know the best teaching methodology which will facilitate the learning process. Hence the objective is to obtain the student's feedback about the teaching and learning methodologies which are used so that their suggestions could be used in planning the most effective teaching. It is also important to know the opinion of the students regarding the best assessment techniques to measure their knowledge and skills.

MATERIALS AND METHODS

A specially structured questionnaire consisting of points related to the curriculum, teaching methodology and assessment techniques at K.J.Somaiya Medical College, India was prepared. Using this questionnaire, information was collected from 100 MBBS students who had completed first MBBS in the year 2013 and 2014. Adequate explanation was given to the students about the objective and relevance of the study before they filled out the questionnaire and verbal consent was obtained. They were assured of confidentiality and were asked to respond freely and fearlessly. They were informed that the information furnished by them is for the research and evaluation purpose only and will be confidential. The questionnaire was collected back from the students and analysis was done as per each question of the questionnaire.

RESULTS

Figure 1. Teaching Methodologies

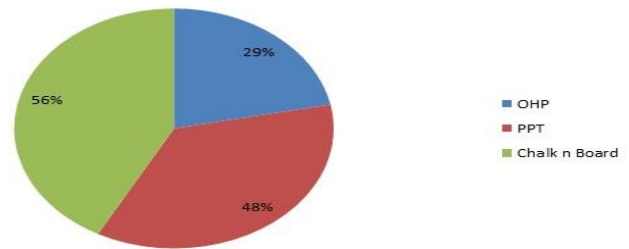


Most students ranked small batch teaching as best method of teaching followed by dissection table teaching.

The opinion of the student seems to be divided about the duration of curriculum. 55.5 % believed that

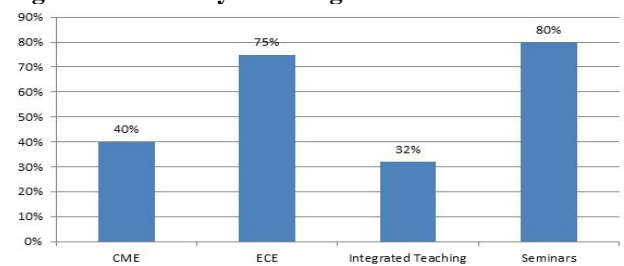
previous scheme of one and half year was better, another 43.1% were in favour of present one year curriculum.

Figure 2. Teaching methodology tools



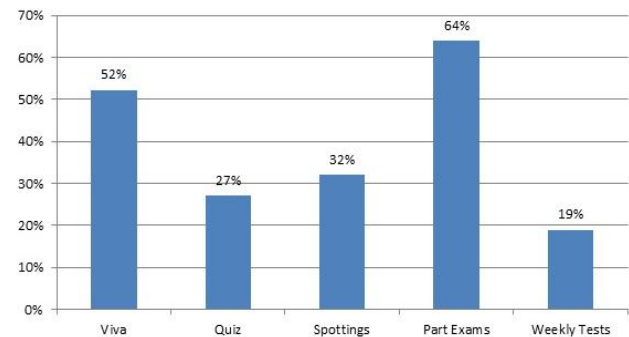
Majority of the students preferred chalk and board as a better means of understanding the topic.

Figure 3. Accessory Teaching Tools



Students were highly in favour of Seminars and Early Clinical Exposure

Figure 4. Assessment Methodology



64% students favoured part exams as the best method of assessment, 52% favoured viva voce for practical assessment

DISCUSSION

Anatomy should be explained extensively and in totality, in a simple way to reach out to the average and below average students. Results of the study emphasise the importance of the teaching methods and assessment methods of Anatomy among students. Regarding teaching methodologies, most students ranked small batch teaching as best method of understanding the topic followed by dissection table teaching but the conventional lecture method of teaching was not liked by most of the students. Students feel that Anatomy was not only difficult to learn

but also may not be appreciated easily if not taught well. Dissection with small batch teaching is helpful in understanding Anatomy and retaining the knowledge. Dissection provides three dimensional view of structures and is a good method for learning linkages and positions that are difficult to rote-learn. None of the students were in favour of 'self-study' in the museum method. Majority of students believed that the number of lectures and tutorial as well as practicals were adequate to cover the topics. Regarding duration of curriculum, more than half the students felt that the learning material was very vast compared to the duration, hence were in favour of increasing the duration to one and a half year. Teaching methodology tools - A majority of the students elicited the judicious use of chalk and boards even with OHPs or power point presentations as a means of understanding the topic better followed by PPT which they felt were good for taking down relevant information. OHP, they felt were good for diagrams. More than half the students wanted the material in the audio-visual room to be accessible to them and even preferred to get a hand-out of the material before the lecture. Among the Assessment methods adopted, students were highly in favour of Part Exams for theory assessments and vivas for practical assessment. Few of the students were in favour of a short revision of a region. But spottings and quizzes were not popular among the students. Journal writing was the least favoured method of assessment. Student's opinions were divided for learning through CME. 40% of the students felt that was a useful tool. Only 32% thought that the integrated teaching programs were useful to them. Regarding seminars and Early Clinical Exposures (ECE) that we have started for the students, they were liked by majority. 80% of the students felt that seminars not only helped them increase their clinical knowledge but also made them confident enough to speak before their teachers. 75% of the students felt ECE classes were good and helped them to understand the clinical applications of the part they study. Only 46% students are aware of internet as a tool to learning and judge it as an effective source of self-learning. 34% of students gave importance to reference books in library as they felt that they did not have enough

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time for the same and that departmental teaching was adequate.

CONCLUSION

Despite being difficult, Anatomy is an essential subject in medical and allied health professions, as it is a direct method that helps students deepen their understanding and knowledge of the human body. Since its beginning, anatomical information is delivered through lectures, demonstrations, and, reinforced by dissection of cadavers and other visual aids. The best method of learning is a combination of small batch teaching with dissection hall teaching on the cadavers. Majority students opined that the best method of assessment are viva & part ending tests. This study shows that the planning about the curriculum, teaching methodology & assessment techniques can be modified taking into consideration the opinion of the students to bring out the best in them. As courses become shorter and curriculum vast, the resources of teaching methods must help students learning and most importantly help to recall and apply anatomy knowledge in medical practice.

Competing Interests:

The author declares that he has no competing interest.

Authors' contributions:

SPS draft the manuscript, performed the literature review & SR assisted with writing the paper.

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